

SEQUENCE LISTING

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Erdos, Geza
Hu, Fen Z

<120> Selected Nucleotide Sequences Isolated From Pathogenic Strains Of
Haemophilus Influenzae

<130> AHS-20

<160> 4

<170> PatentIn version 3.2

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<213> Haemophilus influenzae

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<223> n is a, c, g, or t

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gcggtcgtgt actttgtgtg actgcgttag gcgaaagtgt atttgaagca caacaaaaag 240
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atcaacttat gcgacaattt gtcacgttag tattatattc tgcaattctt ctttcattag 540
aagttattta tagaaaatta tttaatatatt ctagtattga gagatacact gaaagttatt 600
tgtctgtttg tttgtttgtt tgtttggttg ttttttcaaa atatagaatt acaagaatat 660

tagttggcgc tttatttgca ataagtattg ttgttaataa tgtacattat gcagtatacc 720
aatcttggat tggacctggt aattactcac ttgcatttaa agaaattaat gagataacaa 780
atgctggcctt aacaatgata gataaattca tatatccatt gttatttggg ttatttgaag 840
ttgctgtggt ttttaagttta agtttcataa aaagaaaagt atataaactt tcttggattt 900
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cccatgagcg ttttatttca cctaactg tttattctcg attaaaatcc aattatttat 1020
cgttgggtta ttttatagga cgaattgttc cttatgagat attttcttta tctaatttc 1080
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aaacatctcc ttttttagat agcttaaaat ataaatcagg agctcttggt ggtaaaactt 1260
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<213> Haemophilus influenzae

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cctgcaaaaa tggctcattaa ccaagtaatc attggcgcaa taaaatttat atgtttgggr 180
tttttacgsa ttaattcttc tgcataatta actaagratg ccattccccc tgtagcttgc 240
aatgttgctg ctgraagrgr tacagacatt atgrtcaaaa taacatctat tggracagrt 300

| | |
|--|------|
| cctattggta gtcttaaacc caacgttaag rtagcaagtc caagaccacc aaataaacca | 360 |
| atggcaatac ctccaaatct aaggccaagt acaatagagg ctagarcaac aaaratttca | 420 |
| acccmgacca taatcatctc cttaatcaat gagtttgata ccaacgmata gcagctctaa | 480 |
| ctaattgctgc tgtagartcc tcataaagta taggttgctc tctcattgca ttttttagga | 540 |
| tcartgggat ttccgtacac cctagaataa tnacttctga accgtgacga ataagttcat | 600 |
| cacgttgtat taacattaat tcttcagctt tttgaatctc tccgctctta tataaataaa | 660 |
| tactttccat gaccgatttt tgatgttctt cattgggaag aagacaaatt aattccatat | 720 |
| ttttctaattg ttttctgata tagctttggt gctaaagtag catcagtagc aagaatacca | 780 |
| atctttgttt taccatttg tagaacttca ttaattgttg aatcaataat atttaacata | 840 |
| tcaacatgac atttctcttt tagttcatca taccaataat gtgcagtatt acaggcaatt | 900 |
| aggatacatt tagcaccgcg attttctaac ccataaatgc gttcctccat tgcaagtagt | 960 |
| ggtgattctc ctccatgcaa aatggaagtt gtacgatcgg gaatatcagg aatagacgaa | 1020 |
| ataacaagag gaatatgttc ttgatcacia tgagctggtg taaattgaat aaatttctga | 1080 |
| aacatatctg ccgttgctgc tgggtccatt ccacataaaa taccaataat gttcttcata | 1140 |
| agaaaaattc tcctatttat ctttgggtta tttattttta acaaaatcta atgaaataag | 1200 |
| agaaatgcaa caaatcgcac gccaatgcaa atattgcata gcataaattg cgcacattac | 1260 |
| aaatgtacia aataatgatt caaatcaata tgataaaaaa caaaaagtga taagctatta | 1320 |
| catatttaag aataaggtat gcaaaattag catagagaga aataataaat gaaaaatatt | 1380 |
| gaaacaaaat ggtkagaaga tbttttaata ctggaagata cacgcaattt ttcacaggca | 1440 |
| gcagaacata gaaatttatc gcaatcagct tttagccgga gaataatttc tcttgaagaa | 1500 |
| tctattggtg taaaacycty cgatagaycc tctgyccac ttcaacttac agaagaagga | 1560 |
| aaattatttc atycgcaagc tagaaacctt ttaaaacagt tacagtataa tcttgatgaa | 1620 |
| ttattagggc agaatacaca aaaaaaacg aatataactt ttgcagctgc acattcccta | 1680 |
| tctttatctg taatgccaaa gttaattcat gatattggtc aatcacacca gaactttatt | 1740 |
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 cccatgtcgg tgcggaggtg catcgcgcc aaccgctctt gaccgccgaa ctgcctgaaa 180
 ccggcgaacg cttcgaaggc atcctgccgc ccgccgcacc cggcccggcc cggcctttgc 240
 gctgcgcaag cgtgccgtga gcatcatcgg tctggatcgc tatgtggctg atggcatcct 300
 gaccactggg caggccgagt ttctgcgtca tgccgtgcgc gagcggcaca acatcctgat 360
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 cgccaccggc gaccgcgtgc tggtgctcga agacaccatc gaactgcaat gcgcggccccg 480
 cgaccatgtg ccgctgcgca cccgcgccgg cgtcgtgtcc atgaccgagc tggtgcgggc 540
 cacgatgcgc ctgcggcccc accgcgtgat cgtcggcgaa gtgcgcggcg gcgaagcgct 600
 ggatctggtg aaggctctgg gcaccggcca ccccgccggc atcgccacca ttcattgccg 660
 ctccgcgttg ggcgcgctgc tgcgcctgga gcaactgata ctgaagtgg cggatgaatcc 720
 gccccgcgcc ctgatcgccg aggcgggtcaa tgcgtgata cacatcgag gccgcggccg 780
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| | |
|---|------|
| acactgcagg atcttggcta ttttccaatt ctaattgcaa tgtttcaa | 180 |
| catcatcatt cggcgcctca tcttttaatt tttttaattt tattaacttc | 240 |
| caatcactgt catttcatct ttagtttctt tattatgctc ttgcaataat | 300 |
| tattttcatc ttttaccgtg ccaattccca aaatataaag aatagcta | 360 |
| cgctatttgg acgaaatcga ttatttttcta cttgtctaaa caccgcagg | 420 |
| atagactgct tttataggct ttatccaacc aataaaacgc cttttccca | 480 |
| tattatcatt accatcaaaa taccaacgcc ctaactgtgc ttccgccatt | 540 |
| tatttgccgc ttgttccacc aacatataac ctgtcaaaaa atccttatcc | 600 |
| catctatagm caagaatcat tttggcaaaa ttatcgcccg catccgcagc | 660 |
| taatgttttg acgattcttt atttcctttg tcattataaa tggttgccaa | 720 |
| gccaacggat aattttgatt gctggcttta agaaaccact ctgtcgctaa | 780 |
| cctwtgataa aataataacg cccaactga tattgcgctc cagcattgcc | 840 |
| caacactcgc aaacgtgctg gagaaaaatc ttcaagtgtc ttntctagc | 900 |
| cataatactc ctgagcacta actaatmvtc ctagctgttt aatctcacga | 960 |
| aatattgggt aaaatacaca gctccaccac caattactgc caataataa | 1020 |
| ttaatttttt cttcattatt ttgttccttg atttaattgt ttatacatc | 1080 |
| ttgctcttta ttatcacaag ccttgccaaa ccattttttg gcagtggcaa | 1140 |
| tactcctatt ccgccatat aagcaagacc aactattgcc tgcgctcgag | 1200 |
| ttctgctgct ttttgatacc attttatggc ttcagtttta ttttcttta | 1260 |
| atcataatac atatcgccca atatcatttg ggattcagta tcattttgat | 1320 |
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| atattgagcg atacgtacac cttgttcagc cgatttttta taccatttta | 1560 |
| ataatcttgc tttatgccat cgccattttt atataacacc gctaacatcc | 1620 |
| cccatctccc tgctctgcta aaggacgaat aattgctaata gcggacttaa | 1680 |
| ttcaaataaa tgaacaatct tatcaacttg ctctcttccc attgcataaa | 1740 |
| aaaagaaaag atagaagcac cgaaaagtgc ggtggtaaga agtgtttttg | 1800 |
| tttgttttcc tattaaattg aatgaataaa taatctttta tttttattca | 1860 |

| | |
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| cgtataagta gaaaaatctt taagtacttc gctatgtggg tgcccatttc gtcgctggct | 1920 |
| atctgctgaa aacacactaa gacaaggcga aaatatgttc gctaatacctt gctgcccaatt | 1980 |
| atgctttgaa ccgtgatggg gaacttgtaa gcmatmaaty stsgccattc gttctacacc | 2040 |
| taatgattgc gttaaatcgg ttaataatgg caaatcattt aaaaacgcat cgcctgtata | 2100 |
| taaaatcgca tttttgtttc tatcttttgg gaaaacaaga atttcatttc catcattttt | 2160 |
| aggaatatca taaatataat tattccctag tccccaaaca gctgttgatg ttatatattct | 2220 |
| aatatataaa tattgagaaa tgatatTTTT gtttttattt ccatttccaa atgcgagagt | 2280 |
| atagagtgtt ttttaaggctg gcgttggatc tgtggaatta gactgatgag attgaataat | 2340 |
| ttgctcaacc tgcttttgaa aagcagtcaa atttgttggc acttttgcaa gcaaatgaaa | 2400 |
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| atcaggattg agccaatgta ctttttgttt taagttatca aactcatttg ataatttttc | 2520 |
| agtagtttta aaagaaagta catcatcaaa attacttggg tcaagagtta tcaaaatttc | 2580 |
| actctcattt tcttttg | 2597 |